MIDMARK®

RECOMMENDED TOOLS

- Screwdriver with 5-7" shaft & phillips head (cordless optional)
- Screwdriver with 1-2" shaft & phillips head
- Level
- Tape measure
- 1/4" socket (6 point) with ratchet
- Stud Finder
- Hammer drill w/ 1/4" bit for masonry anchor (for installations on masonry walls)

RECOMMENDED FASTENERS (NOT SUPPLIED)

Stud Walls (Standard)
Use #12 x 2" long round head wood screws (course threaded). The screws must be driven into the wall studs or backing. It may be necessary to use washers to keep the head of the screws from pulling through the holes in the hanging bracket. (Use sheet metal screws for steel studded walls). In studded walls where backing is not provided, it will be necessary to use 3/16" short mollies, or other types of commercial expansion fasteners.

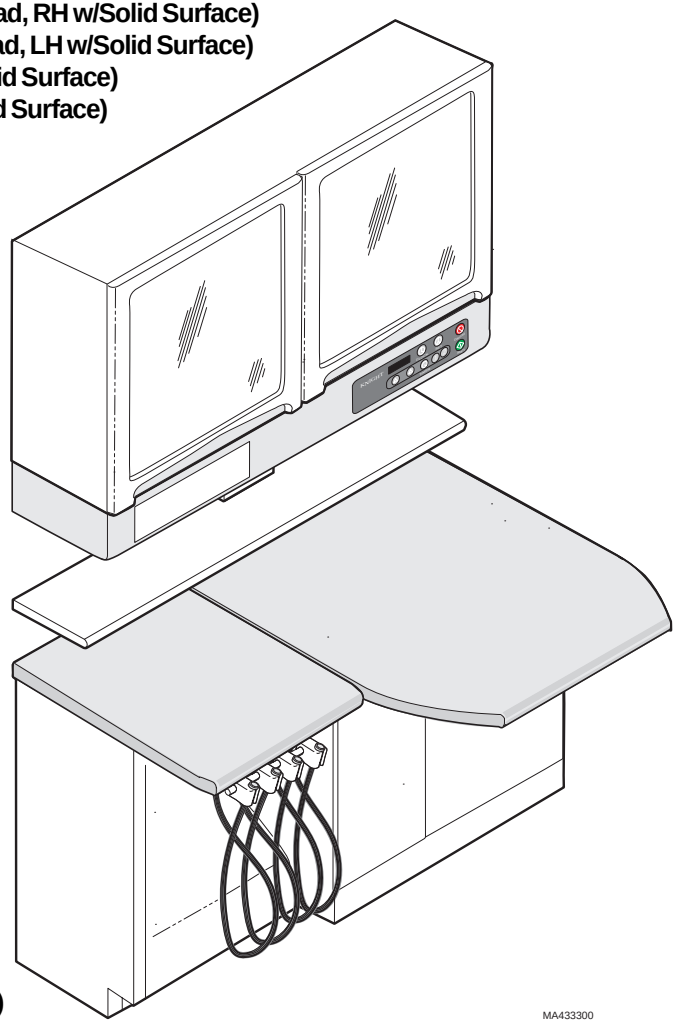
Hollow Tile or Masonry Walls
Use 1/4" machine screw expansion anchors of adequate length. A 3/16" short molly or other type of expansion fastener may be used if the installers predrill the hole.

Rough Solid Concrete or Brick Wall
Use #12 round head wood screws or a specialized masonry fastener.

MODELS:

Installation Instructions

DM-RDR001 (12:00 Delivery Casework w/Overhead and Task Light, RH)
DM-RDL001 (12:00 Delivery Casework w/Overhead and Task Light, LH)
DM-RDR002 (12:00 Delivery Casework w/Overhead, RH)
DM-RDL002 (12:00 Delivery Casework w/Overhead, LH)
DM-RDR003 (12:00 Delivery Casework, RH)
DM-RDL003 (12:00 Delivery Casework, LH)
DM-RDR001SS (12:00 Delivery Casework w/Overhead and Task Light, RH w/Solid Surface)
DM-RDL001SS (12:00 Delivery Casework w/Overhead and Task Light, LH w/Solid Surface)
DM-RDR002SS (12:00 Delivery Casework w/Overhead, RH w/Solid Surface)
DM-RDL002SS (12:00 Delivery Casework w/Overhead, LH w/Solid Surface)
DM-RDR003SS (12:00 Delivery Casework, RH w/Solid Surface)
DM-RDL003SS (12:00 Delivery Casework, LH w/Solid Surface)



DM-RDR001 (Shown)

MA433300

WALL LAYOUT PREPARATION (as applicable)

NOTE:
Please check local electrical and plumbing codes. Knight cannot be held responsible for installations which do not conform to local codes.

A - The wall layouts (Figures 1 and 2) show a unit with a task light / clock and overhead options. If the unit you are installing does not have a task light / clock or an overhead, disregard instructions and dimensional information for those options.

B - Have a licensed electrical contractor position and install electrical outlet receptacles as necessary using layouts (Figures 1 and 2).

C - Have a licensed plumbing contractor position and install plumbing using layouts (Figures 1 and 2).

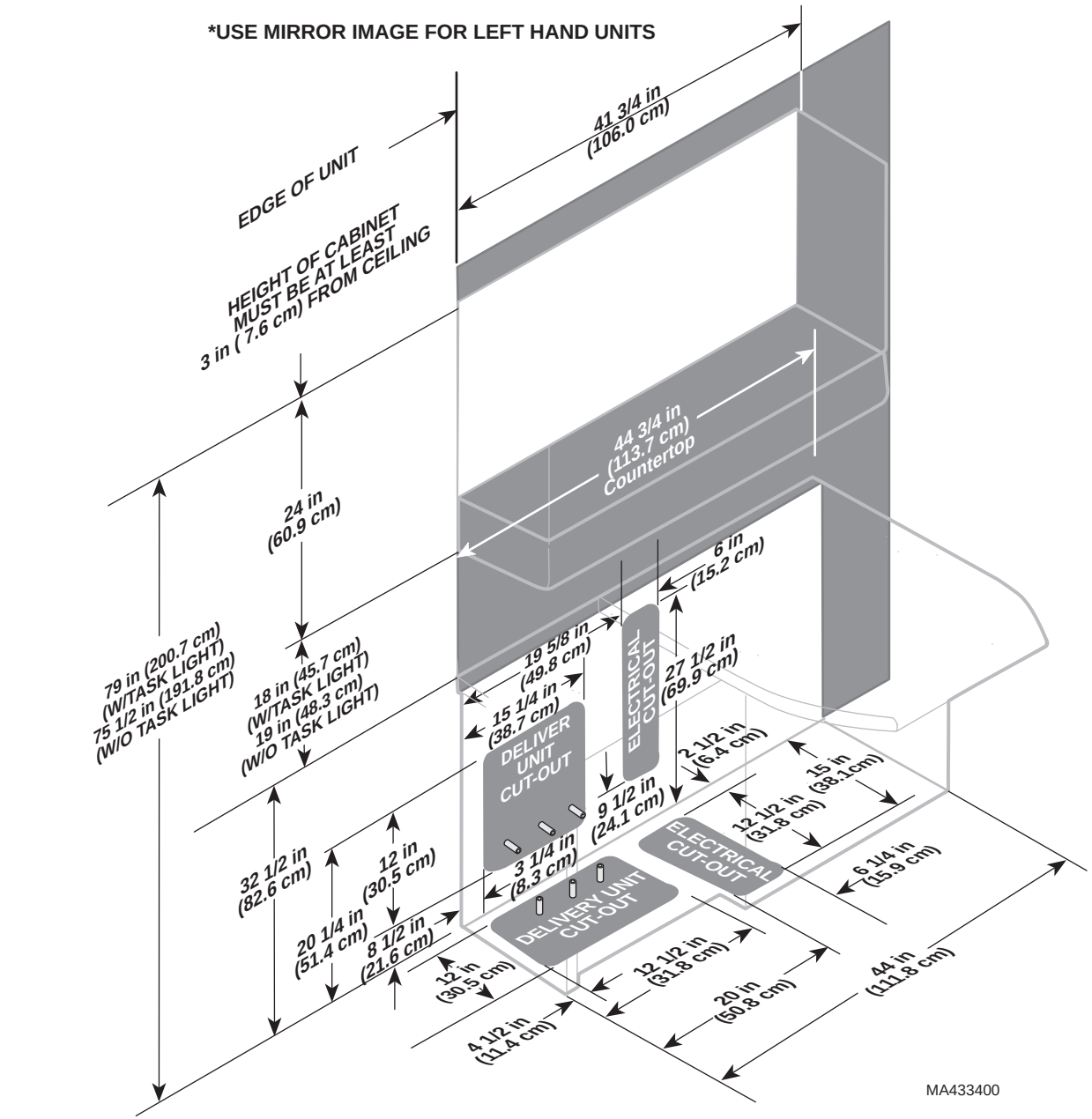
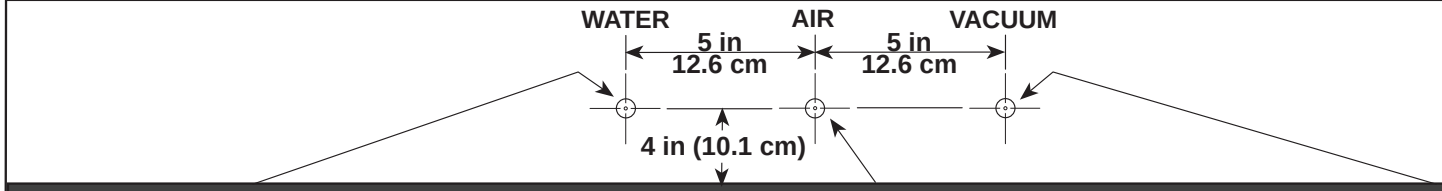

*USE MIRROR IMAGE FOR LEFT HAND UNITS
EDGE OF UNIT
41 3/4 in (106.0 cm)
HEIGHT OF CABINET MUST BE AT LEAST 3 in (7.6 cm) FROM CEILING
44 3/4 in (113.7 cm) Countertop
24 in (60.9 cm)
6 in (15.2 cm)
79 in (200.7 cm) (W/TASK LIGHT) 75 1/2 in (191.8 cm) (W/O TASK LIGHT)
18 in (45.7 cm) (W/TASK LIGHT) 19 in (48.3 cm) (W/O TASK LIGHT)
19 5/8 in (49.8 cm)
15 1/4 in (38.7 cm)
DELIVER UNIT CUT-OUT
ELECTRICAL CUT-OUT
27 1/2 in (69.9 cm)
2 1/2 in (6.4 cm)
9 1/2 in (24.1 cm)
15 in (38.1cm)
12 1/2 in (31.8 cm)
ELECTRICAL CUT-OUT
6 1/4 in (15.9 cm)
32 1/2 in (82.6 cm)
12 in (30.5 cm)
3 1/4 in (8.3 cm)
20 1/4 in (51.4 cm)
8 1/2 in (21.6 cm)
DELIVERY UNIT CUT-OUT
12 in (30.5 cm)
12 1/2 in (31.8 cm)
20 in (50.8 cm)
44 in (111.8 cm)
4 1/2 in (11.4 cm)
MA433400

Figure 1

DELIVERY UNIT/ASSISTANTS UNIT SERVICE DETAILS

FLOOR MOUNT SERVICE



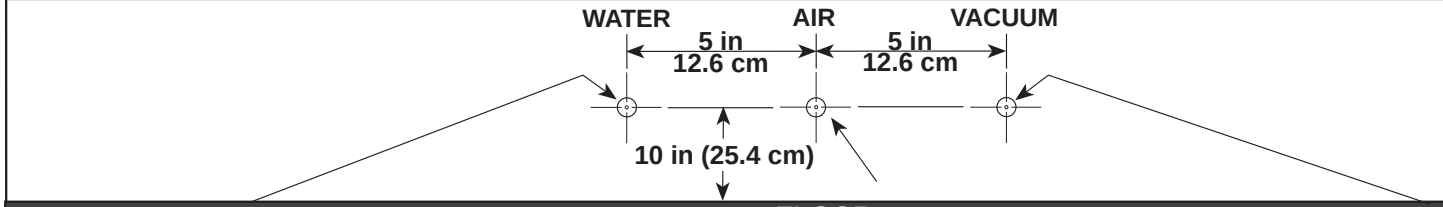
WALL

3/4 in (1.9 cm) Hole. 1/2 in I.D. NPT Water Pipe (Copper Tubing). Stub out 1-3/4 in (4.5 cm) Min. 3-3/4 in. (9.5 cm) Max from finished floor surface. Use 1/2 in male NPT fitting on end of stub for connection to shut-off valve. Install 1/2 in inlet x 3/8 in O.D. outlet angle shut-off valves. Water pressure must be between 30-50 psi (206.7-344.6 kPa), If water pressure exceeds the 50 psi (344.6 kPa) use a suitable pressure reducing valve.

3/4 in (1.9 cm) Hole. 1/2 in I.D. NPT Water Pipe (Copper Tubing). Stub out 1-3/4 in (4.5 cm) Min. 3-3/4 in. (9.5 cm) Max from finished floor surface. Use 1/2 in male NPT fitting on end of stub for connection to shut-off valve. Install 1/2 in inlet x 3/8 in O.D. outlet angle shut-off valve. Air pressure must be between 75-100 psi (516.9 - 689.2 kPa). If air pressure exceeds the 100 psi (689.2 kPa), use a suitable pressure reducing valve. For maximum life and trouble free operation, the air supply must be clean and dry. It is recommended that a moisture separator and filter be installed as near to the connection as possible, and be accessible for periodic cleaning.

7/8 in (2.2 cm) Hole. 5/8 in O.D. NPT Copper Tubing or Plastic Tubing. Stub out 1 in (2.5 cm) Min. 2-1/2 in. (6.4 cm) Max from finished floor surface. Vacuum level must be adjustable to 10 in Hg (25.4 mm Hg) with all vacuum lines closed.

WALL MOUNT SERVICE



FLOOR

3/4 in (1.9 cm) Hole. 1/2 in I.D. NPT Water Pipe (Copper Tubing). Stub out 1-3/4 in (4.5 cm) Min. 3-3/4 in. (9.5 cm) Max from finished wall surface. Use 1/2 in male NPT fitting on end of stub for connection to shut-off valve. Install 1/2 in inlet x 3/8 in O.D. outlet angle shut-off valves. Water pressure must be between 30-50 psi (206.7-344.6 kPa), If water pressure exceeds the 50 psi (344.6 kPa) use a suitable pressure reducing valve.

3/4 in (1.9 cm) Hole. 1/2 in I.D. NPT Water Pipe (Copper Tubing). Stub out 1-3/4 in (4.5 cm) Min. 3-3/4 in. (9.5 cm) Max from finished wall surface. Use 1/2 in male NPT fitting on end of stub for connection to shut-off valve. Install 1/2 in inlet x 3/8 in O.D. outlet angle shut-off valve. Air pressure must be between 75-100 psi (516.9 - 689.2 kPa). If air pressure exceeds the 100 psi (689.2 kPa), use a suitable pressure reducing valve. For maximum life and trouble free operation, the air supply must be clean and dry. It is recommended that a moisture separator and filter be installed as near to the connection as possible, and be accessible for periodic cleaning.

7/8 in (2.2 cm) Hole. 5/8 in O.D. NPT Copper Tubing of Plastic Tubing. Stub out 1-3/4 in (4.5 cm) Min. 3-3/4 in. (9.5 cm) Max from finished wall surface. Vacuum level must be adjustable to 10 in Hg (25.4 mm Hg) with all vacuum lines closed.

MA433500

Figure 2

OVERHEAD CABINET INSTALLATION (if applicable)

A - Find the highest point of floor.

B - Measure up from the highest point of floor and make a mark at required installation height of overhead cabinet [if an optional task light is being installed with overhead, Dimension B is 79 in (200.7 cm). If an overhead only is being installed, Dimension B is 75-1/2 in (191.8 cm)].

C - Measure down 3 inches (7.6 cm) and make another mark. Use level to extend mark entire width of overhead cabinet.

D - Line up bottom of hanging bracket with mark and secure with hardware (not supplied). Use shims if wall is not true.

E - Hang overhead cabinet, making sure it is firmly in place on hanging bracket before releasing it.

F - If necessary, level overhead cabinet with shims and double sided tape (not supplied).

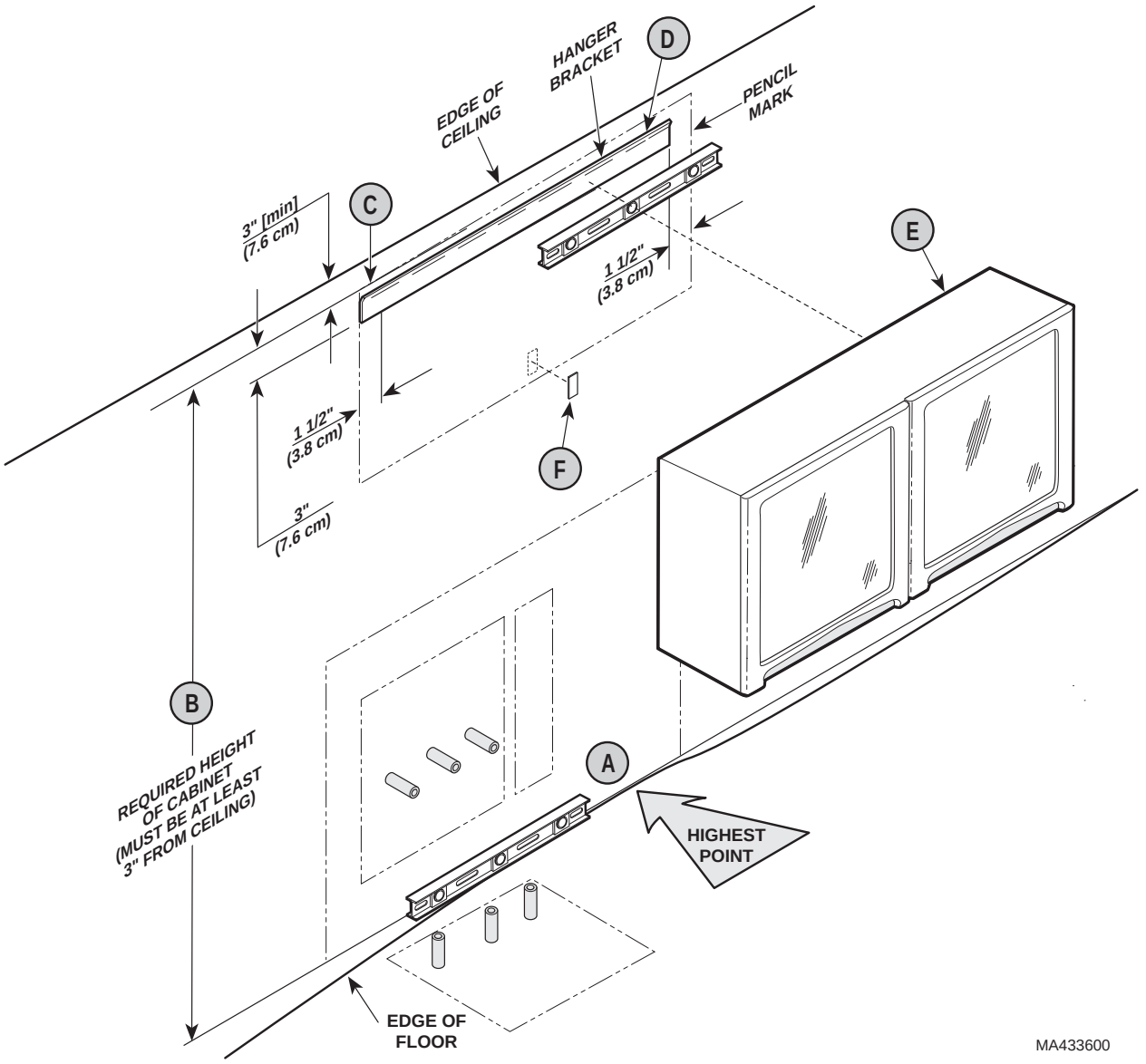


Figure 3

OVERHEAD CABINET DOORS ADJUSTMENT AND SHELF INSTALLATION (if applicable)

A - Check to see if doors need adjusted vertically or horizontally.

B - Adjust doors vertically (so doors are at correct height (aligned with bottom of cabinet) and both doors are even with each other on the bottom) by loosening screws (B) on both hinges of door. After adjusting, retighten screws.

C - Adjust doors horizontally (so doors meet properly; not too large of a gap between doors or doors touching and preventing them from closing properly) by loosening screws (C) on both hinges of door [ideal gap is 1/16 in. (1.6 mm)]. After adjusting, retighten screws.

D - Install shelf brackets and then the shelf at the desired height.

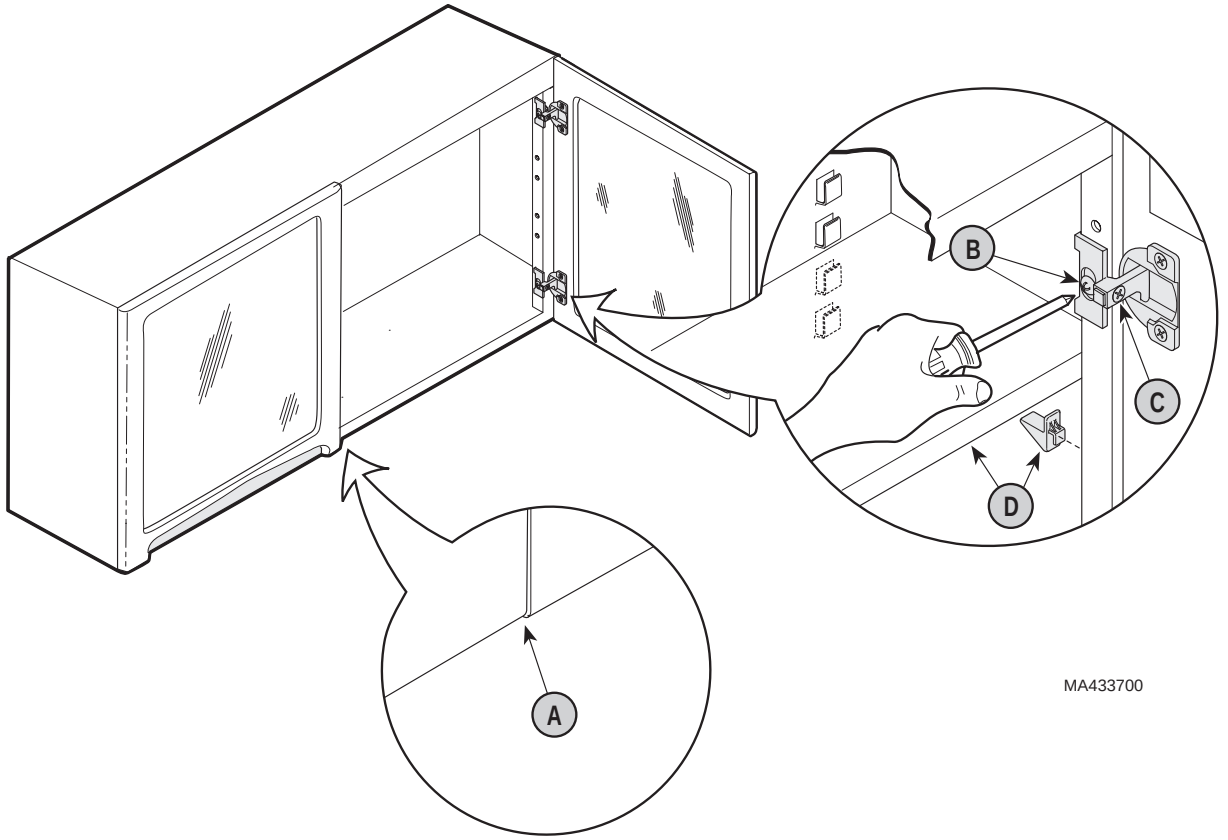


Figure 4

TASK LIGHT INSTALLATION (if applicable)

A - Attach the task light to the bottom of the overhead with four #10-24x5/8 screws, #10 lockwashers, and #10 flat washers (supplied).

B - Refer to the Installation & Operation instructions included with task light unit for additional details.

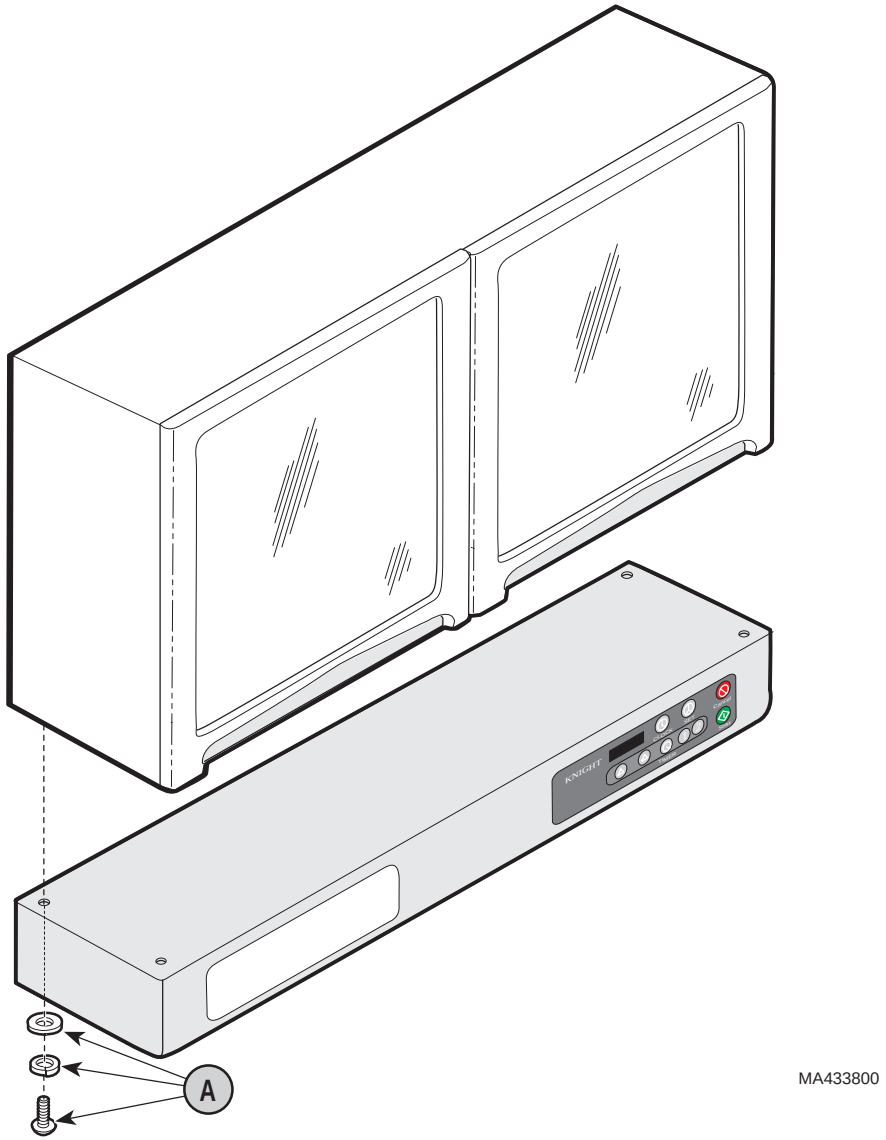


Figure 5

BASE CABINET INSTALLATION

A - On units with an overhead or task light / clock, determine centerline of overhead or task light / clock. Using a level, mark a vertical line on wall down to base cabinet height.

B - Move base cabinet into position against wall.

C - Position base cabinet by centering top flange (1) with centerline mark on wall.

D - If installed, remove plumbing cover from delivery cabinet.

E - If installed, open door and remove bottom from center cabinet.

F - If installed, open door and remove bottom from end cabinet.

G - Using a 1/4" socket, adjust leveling screws to the fully lowered position. Then, level base cabinet by adjusting leveling screws (Do not adjust leveling screws more than 1-1/2 in. (3.8 cm) to prevent loss of stability).

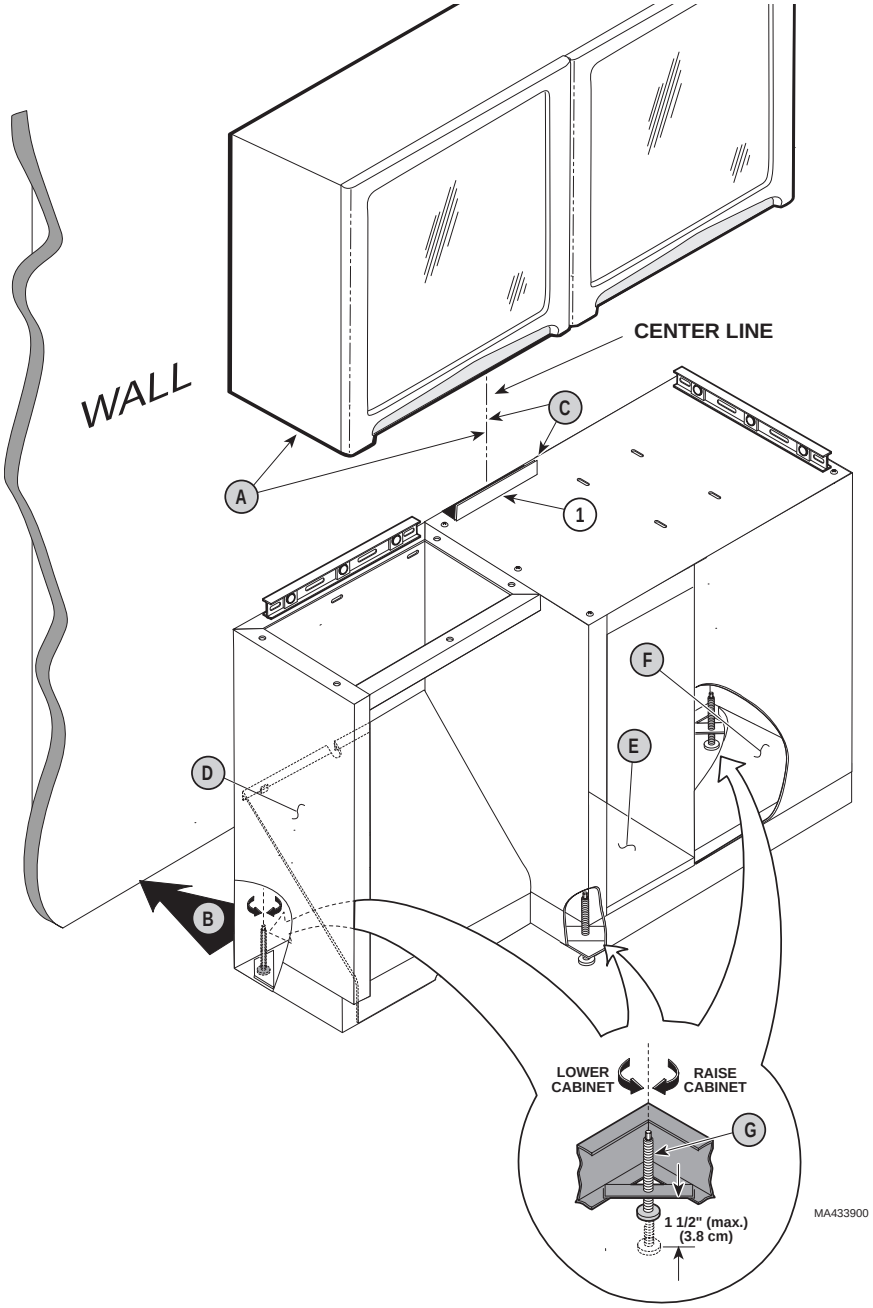


Figure 6

BASE CABINET INSTALLATION - CONTINUED

A - Attach cabinet to wall with appropriate fasteners (see cover page of this manual for fasteners).

B - Remove access panels from electrical channel.

NOTE:
On units without a task light or overhead, electrical channel is shorter and fits under shelf.

C - Attach electrical channel to wall with six #6 drywall screws (not supplied); the top of channel fits in slot of task light or underneath overhead and the bottom of channel rests on cabinet.

D - Depending on unit style, attach one / two brackets to base cabinet with three / six #10 flat head screws (supplied).

E - Depending on unit style, attach half / full shelf to bracket(s) with four / eight #8-1/2 flat head screws (supplied).

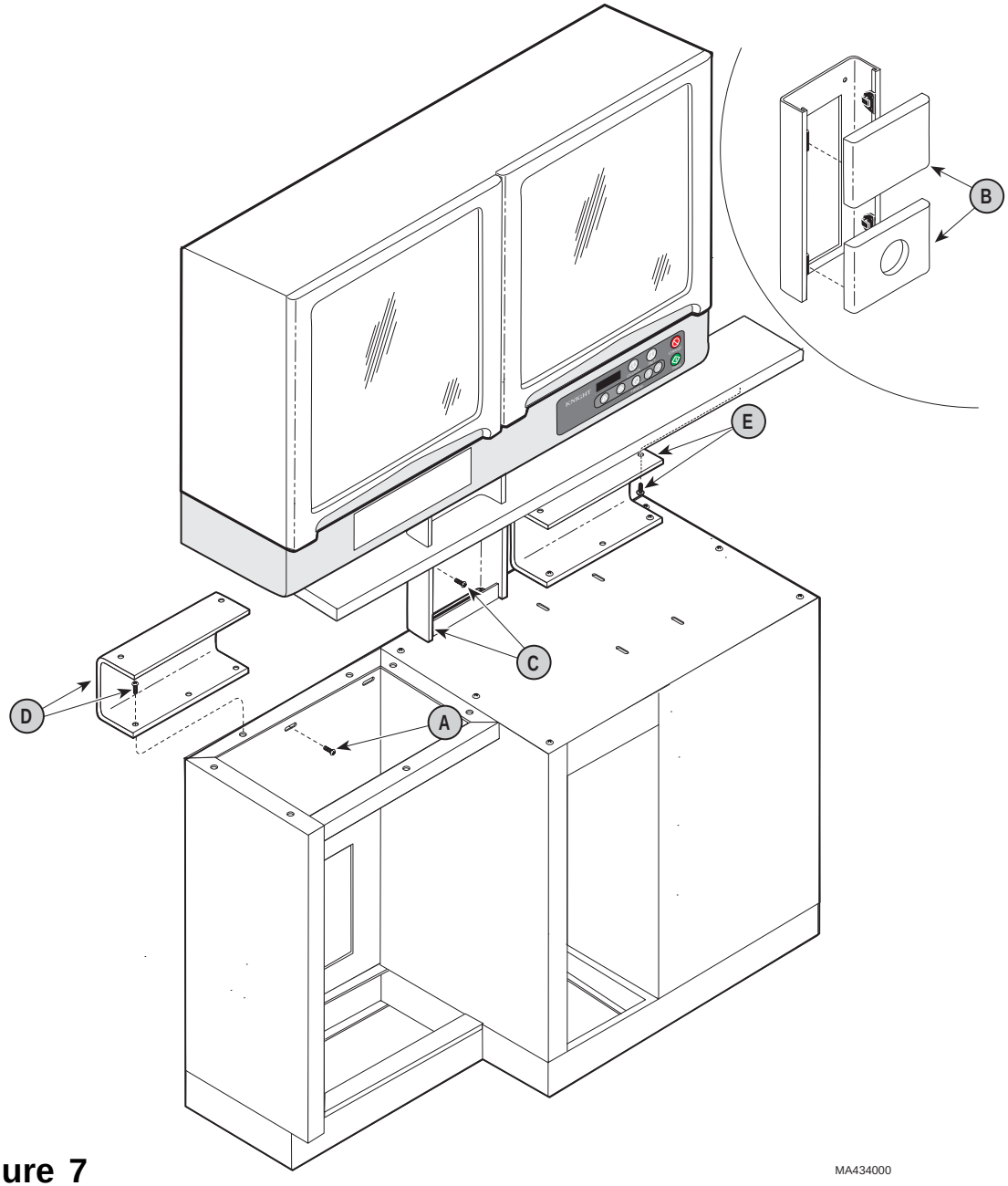


Figure 7

BASE CABINET INSTALLATION - CONTINUED

A - Position spacer (1) on inside edge of shelf bracket.

B - Position sliding countertop on cabinet, making sure studs (2) on bottom of countertop are in slots (3) of cabinet.

C - While pushing sliding countertop against spacer (1), secure countertop in place with four lockwashers and nuts. Remove spacer (1).

D - Position stationary countertop on cabinet using spacer (1) to ensure proper spacing between stationary countertop and sliding countertop.

E - Secure stationary countertop with four #10-5/8" screws (supplied).

F - Remove spacer (1) and discard.

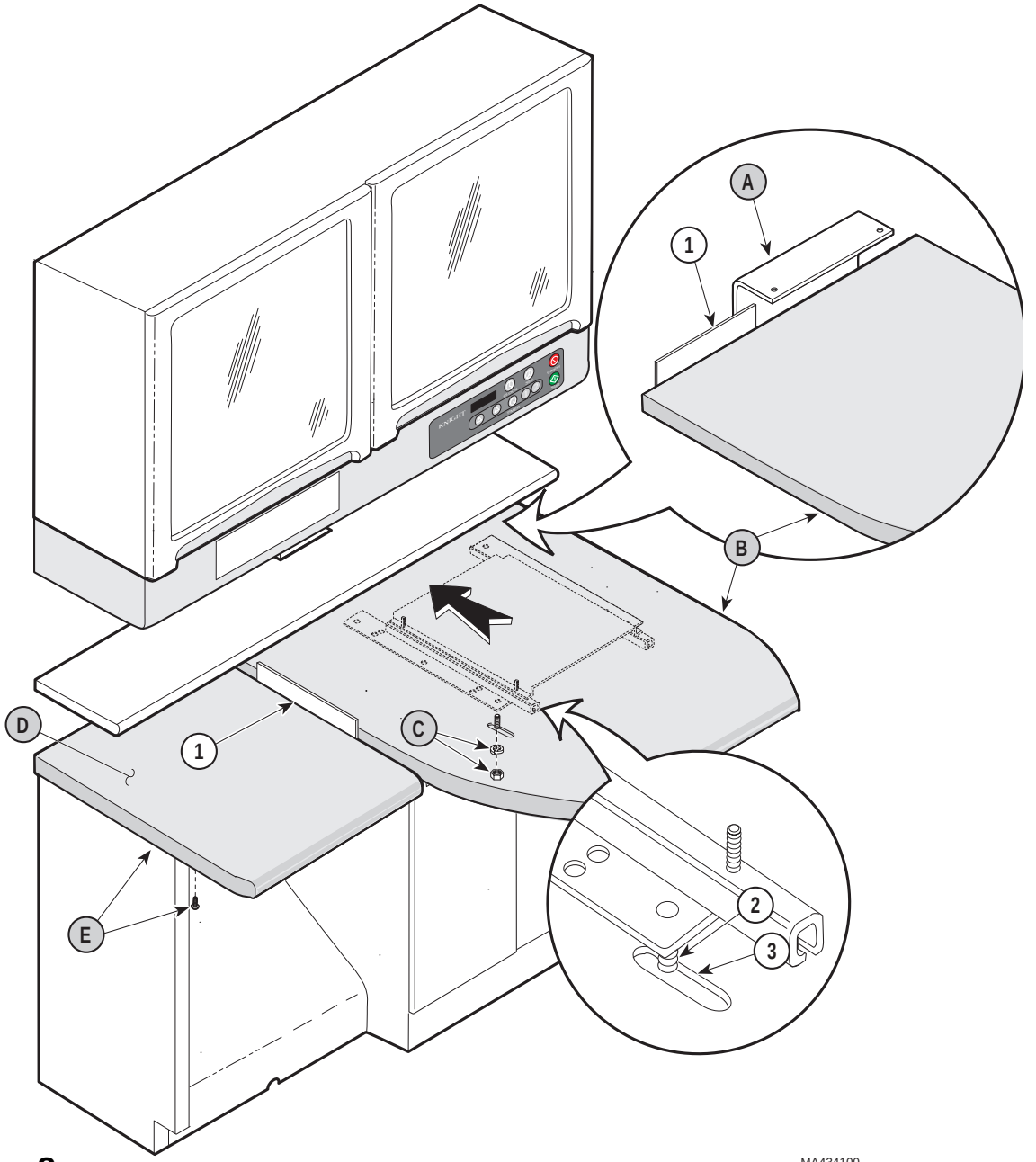


Figure 8

BASE CABINET DOORS ADJUSTMENT

A - Check to see if doors need adjusted vertically or horizontally.

B - Adjust doors vertically (so doors are even with bottom of cabinet) by loosening screws (B) on both hinges of door. After adjusting, retighten screws.

C - Adjust doors horizontally (so doors align properly with edge of cabinet) by loosening screws (C) on both hinges of door.

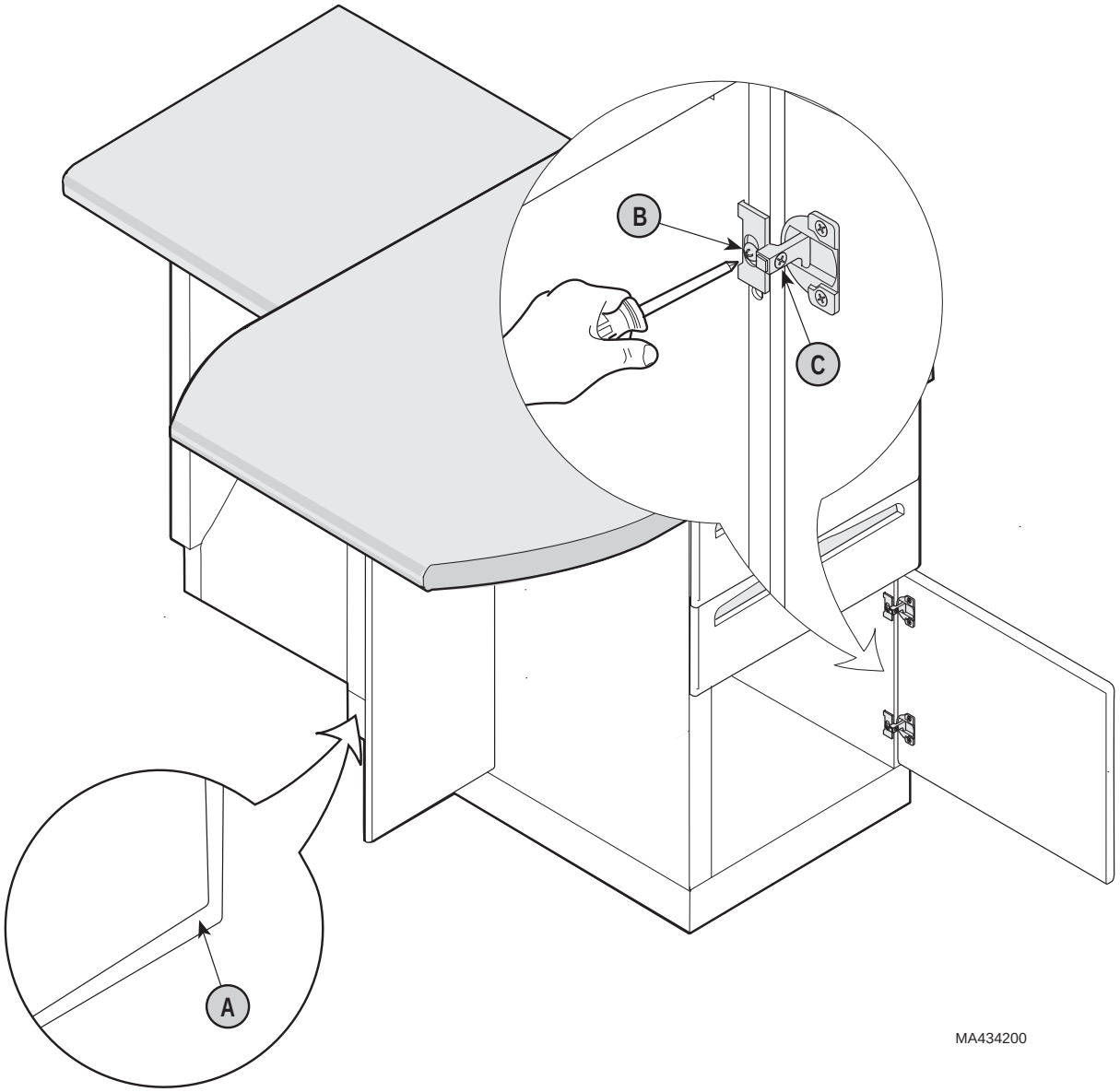


Figure 9

DELIVERY UNIT / ASSISTANT'S UNIT INSTALLATION

NOTE:
If installing a Knight Delivery Unit, holes for following step are predrilled.

A - Attach delivery unit to bottom of delivery shelf with wood screws (not supplied).

NOTE:
If installing a Knight Assistant's Unit, holes for following step are predrilled.

B - Attach assistant's unit to bottom of sliding countertop with wood screws (not supplied).

C - Remove two drawers from right side of cabinet. To remove a drawer, pull drawer out until it meets resistance. Then, on both sides of drawer, bend sides of drawer outward until locking slots (1) of drawer are free of tabs (2) on drawer slides.

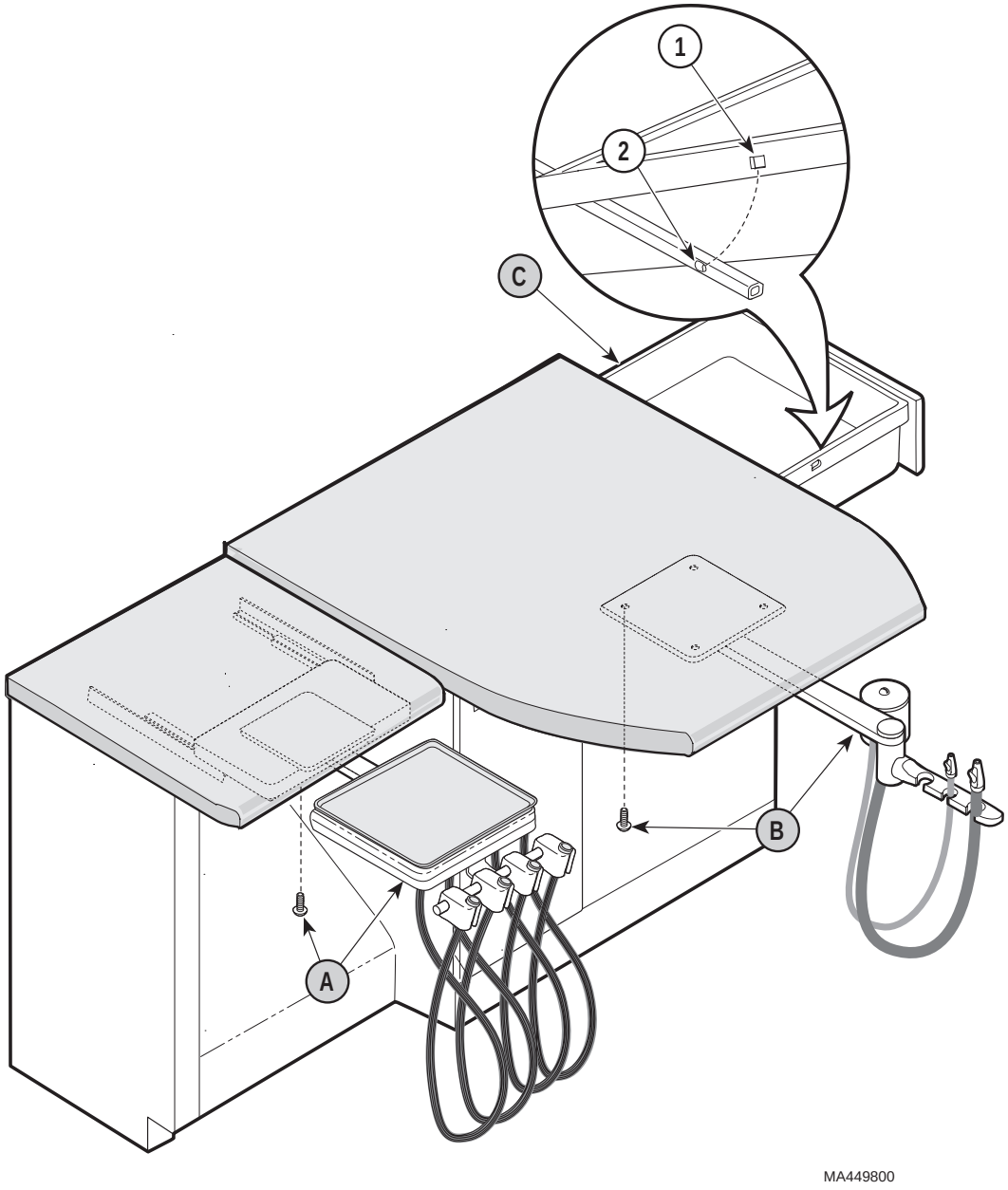


Figure 10

DELIVERY UNIT / ASSISTANT'S UNIT HOSE / TUBING ROUTING

A - Clamp delivery unit tubing to side of cabinet with clamp (supplied), making sure to leave enough slack in tubing so that delivery unit may be extended fully.

B - Route assistant's vacuum hose through cabinet as shown. Secure hose in place with four clamps (1) (supplied).

C - Reinstall two drawers from side of cabinet. To install a drawer, position drawer on drawer slides. Slide back of drawer into rear hooks on each slide and then snap drawer side slots (2) over slide locking tabs (3).

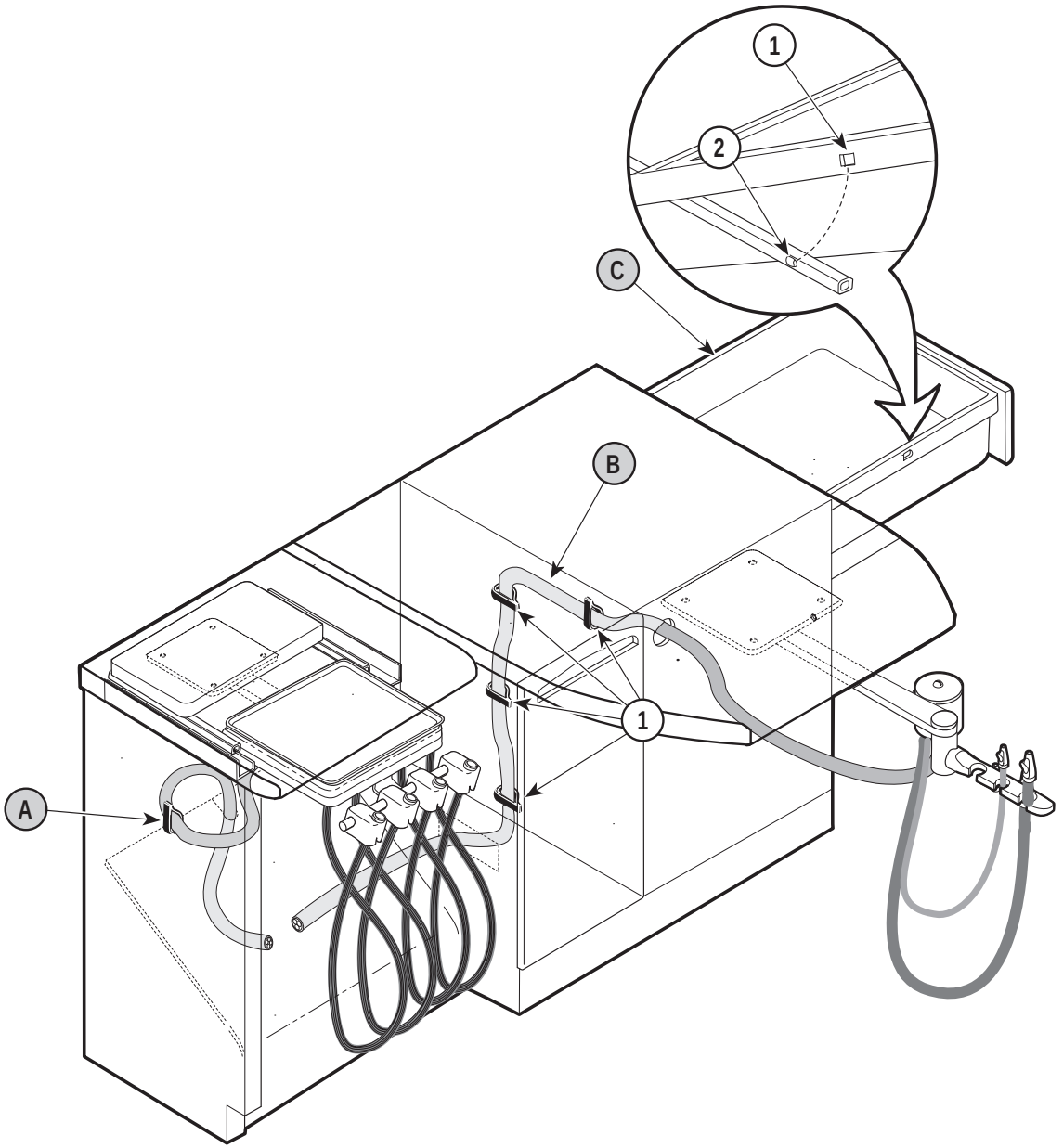


Figure 11

PLUMBING / ELECTRICAL CONNECTIONS

Have a licensed plumber make the following connections:

A - Delivery Unit Connections - Refer to the installation instructions included with delivery unit to install the manifold and make all necessary tubing connections.

B - Assistant's Unit Connections - Connect the vacuum tube of assistant's unit to the vacuum supply tube.

Have a licensed electrician make the following connections:

C - Task Light Connections - comes standard with 9'0" (2.74 m) corded plug (if hard wire connection is desired, cut off plug and strip wires). Route wiring through electrical channel (1).

D - Outlets / Switches - Install any other outlets (i.e, for a computer, etc.), switches, or other desired electrical devices as desired.

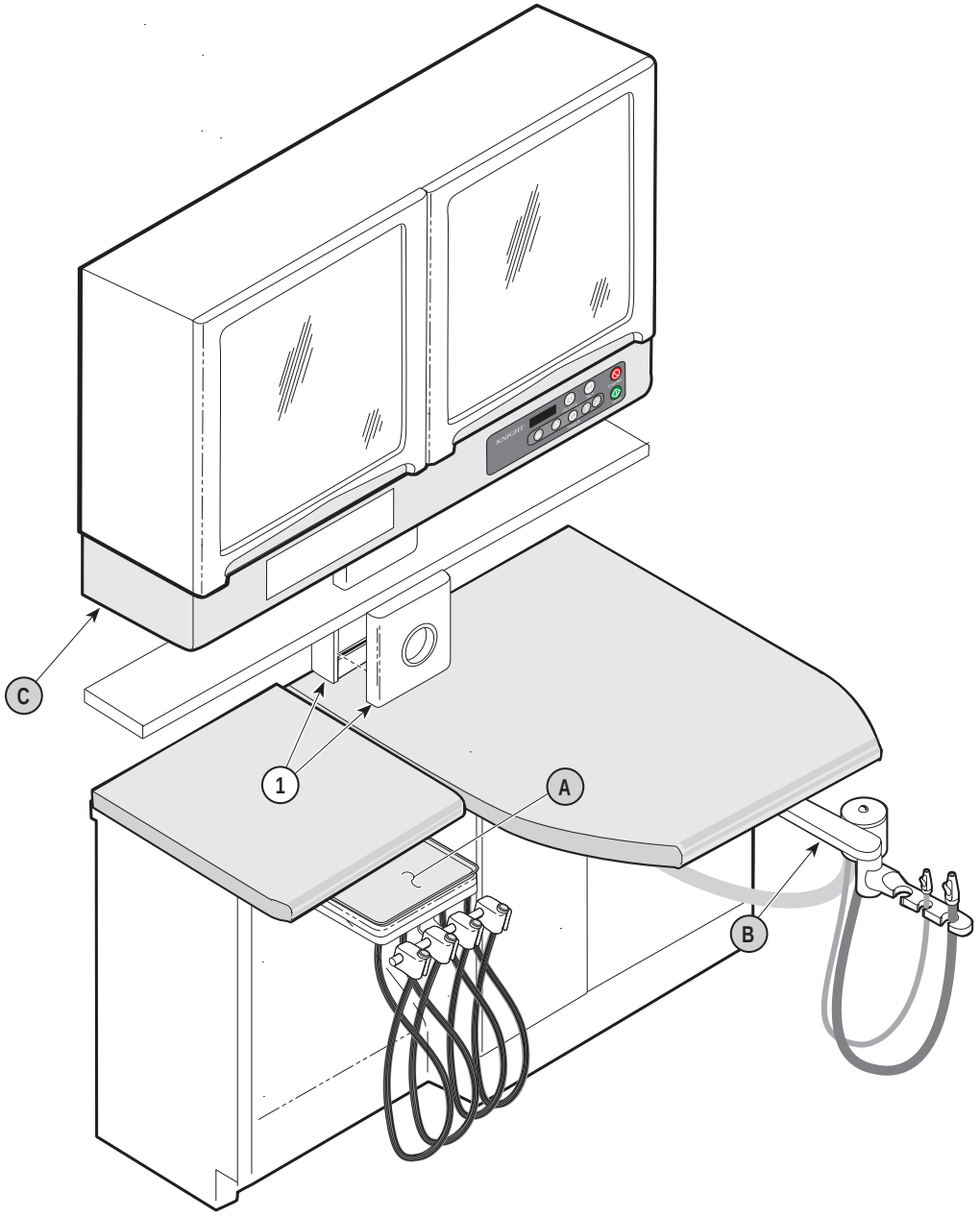


Figure 12

COVERS INSTALLATION

A - Install top electrical cover and bottom electrical cover on electrical channel by snapping them into place.

B - Install bottom in end cabinet.

C - Install bottom in center cabinet.

D - Install plumbing cover on delivery cabinet, making sure lip of plumbing cover is secured in tabs (1).

E - If desired, install four clips and shelf at desired height.

F - Wipe exterior of cabinets and overhead with a mild spray cleaner and broom clean all drawers and storage areas.

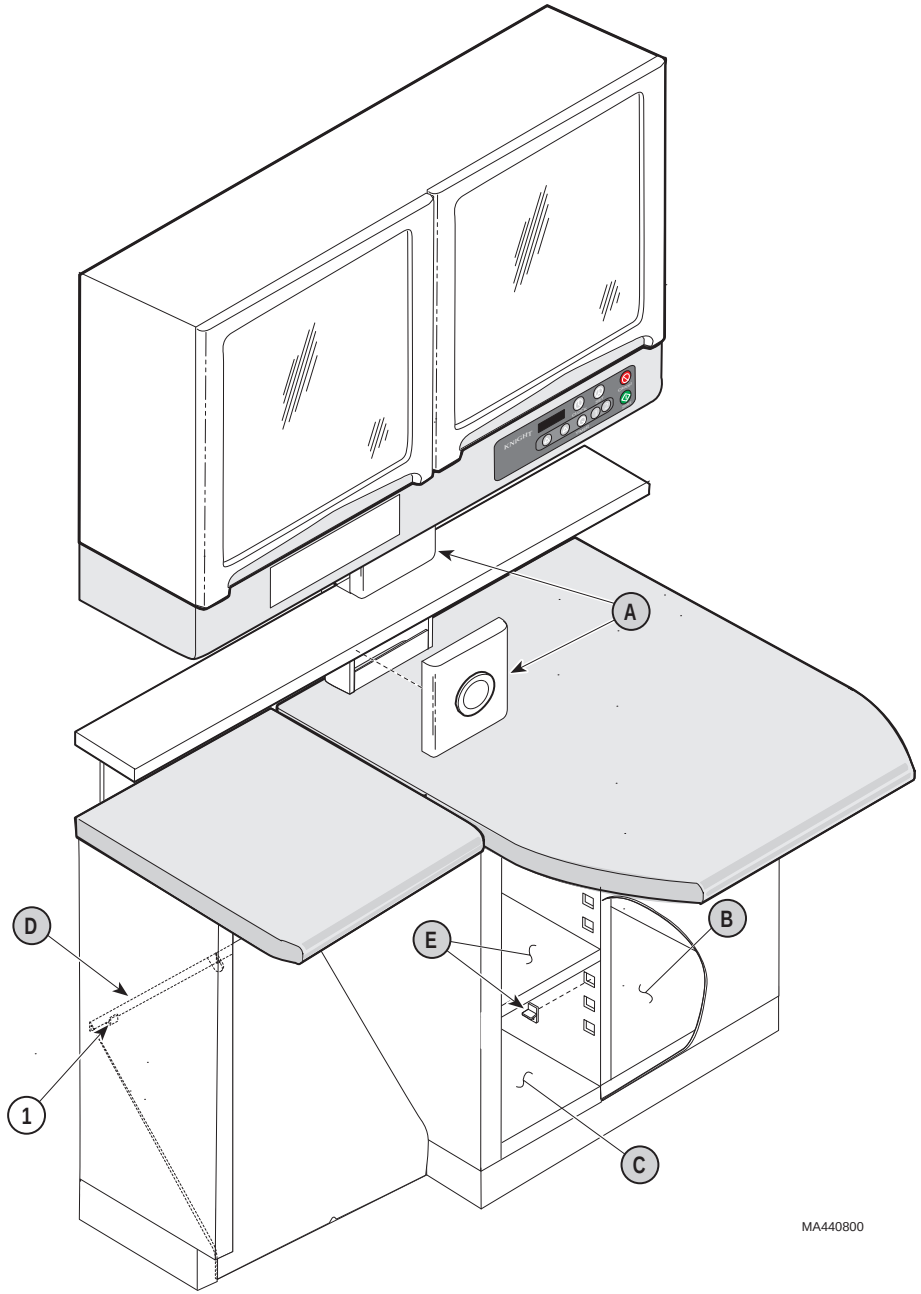


Figure 13

KNIGHT DENTAL CASEWORK LIMITED WARRANTY

Extension of Warranty:

Midmark® Corporation ("Midmark") warrants to the original purchaser its Knight Dental Casework, manufactured by Midmark, to be free from defects in material and workmanship under normal interior use and service. Midmark's obligation under this warranty is limited to the repair or replacement, at Midmark's option, of the parts or the products the defects of which are reported to Midmark within the applicable warranty period and which upon examination by Midmark prove to be defective.

Applicable Warranty Period

The applicable warranty period, measured from the date of delivery to the original user, shall be as follows:

(a) Five (5) years for all products and components (except for the shorter periods in (b and c)), including plastic laminate top surfaces, door and drawer fronts, castors, and electrical components such as task lights and cords.

(b) Three (3) years for task light ballast.

(c) One (1) year for plastic laminate top surfaces and accessories.

Exclusions

Midmark's warranty does not cover sinks, faucets, and plumbing accessories. Any warranties on these items are extended directly by the manufacturer of these items to the original purchaser. Information on these manufacturers' warranties will be enclosed with the applicable products. Also, Midmark will furnish copies of any of the warranties extended by any such manufacturers upon request.

This warranty does not cover and Midmark shall not be liable for: (1) repairs and replacements required because of misuse, abuse, negligence, alteration, accident, freight damage, or tampering; (2) matching of color, grain, or texture except to commercially acceptable standards; (3) changes in color caused by natural or artificial light; (4) products which are not installed, used, and properly cleaned as required in Midmark's written Installation Manual; (5) specially manufactured products; (6) products considered to be of a consumable nature such as light bulbs and surge suppression product; (7) accessories or parts not manufactured by Midmark; (8) charges by anyone (including Midmark's authorized Knight Dental Casework dealers) for adjustments, repairs, replacement parts, installation, or other work performed upon or in connection with such products which is not expressly authorized in writing in advance by Midmark.

Exclusive Remedy

Midmark's only obligation under this warranty is the repair or replacement of defective parts. Midmark shall not be liable for any direct, special, indirect, incidental, exemplary, or consequential damages or delay.

No Authorization

No person or firm is authorized to create for Midmark any other obligation or liability in connection with the products.

THIS WARRANTY IS MIDMARK'S ONLY WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. MIDMARK MAKES NO IMPLIED WARRANTIES OF ANY KIND INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS.

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